

Remarks**I. Status of the Application**

Claims 19-26, 52-59, 79, 88-90 and 92-100 are pending in the application. Claims 19, 52, 88, 89 and 90 are amended. Claims 1-18, 27-51, 60-78, 80-87, and 91 are cancelled. Claims 92-100 are added.

II. Claim Amendments

Certain of the claims are amended to replace the terms “migration” by the term “de-migration.” These amendments are made to ensure that the language of the claims conforms to the language used in the specification.

III. Claim Rejections - Claim 89

Claim 89 has been rejected for allegedly lacking support in the specification. In addition, claim 89 has been rejected under 35 U.S.C. 112, as allegedly failing to comply with the enablement requirement. In particular, the Examiner has alleged that claim 89 contains subject matter (“pausing the migration procedure...resources”) which is not described in the specification in such a way as to enable one skilled in the art to make/use the invention. The rejections are respectfully traversed.

Claim 89 depends from amended claim 19 and further recites “pausing the migration procedure after the request is received, based at least in part on an availability of resources” and “retrieving the requested data during the pause from a selected data file.”

Clear support for claim 89 is found at page 16, lines 14-21, for example, which state that the background de-migration routine “copies files from source volume 155 to target volume 755 when system resources allow.” This passage further explains that “background de-migration module 422 operates only when resources are available, e.g., when neither controller 220 nor ‘redirector module 421’ is busy handling data processing commands or performing other tasks.” (page 16, lines 20-22). It would therefore be apparent to one skilled in the art that the background de-migration routine runs when system resources allow, and may be paused when either the “controller 220” or the “redirector module 421” is busy, for example.

Because the specification includes sufficient and enabling support for claim 89, the rejections should be withdrawn.

IV. Claim Rejections - 35 U.S.C. § 102

Claims 19-21, 23-25, 52-54, 56-58, 79, 88 and 90 have been rejected under 35 U.S.C. 102(a) as being allegedly anticipated by US Publication No. 2003/0158862 (“Eshel”). Claims 19, 52, 88 and 90 are amended and the rejection is respectfully traversed.

Amended Claims 19 and 52

Claim 19 defines a method for de-migrating one or more data files stored on a source storage device storing a plurality of source data files, to a target storage device. Claim 19 requires “storing in a target storage device a plurality of target data files corresponding respectively to respective ones of a plurality of source data files stored in a source storage device” and “storing in each respective target data file information identifying the corresponding

source data file,” and has been amended to require “activating a de-migration procedure to copy data from the source storage device to the target storage device, after target data files have been stored for all source data files in the plurality.” Claim 19 has been further amended to require “receiving from a host device, by the target storage device, a request specifying a data file, while the de-migration procedure is executing” and “examining, in a target data file corresponding to the specified data file, selected information identifying a corresponding source data file.” Claim 19 has also been amended to require “retrieving requested data from the corresponding source data file” and “providing the requested data to the host device.” Support for the amendments to claim 19 is found at page 12, lines 1 to page 13, line 12, for example.

Claim 52 is a system claim that corresponds to amended claim 19, and has been amended in a similar manner.

Eshel discloses a system for providing a standby file system with a snapshot feature. (Abstract). In a disclosed example, cited by the Examiner, a mirror-type snapshot of data on an original file system is generated by transferring the entire data set to a second file system. (Paragraph [0130]). The mirror copy of the file system is periodically updated by generating new snapshots of the original system and determining changes that have occurred. Snapshot tags identifying each snapshot and the file system from which the snapshot was captured are also used. ([0132]). Eshel also discusses performing snapshots to back up a file system to tape while allowing continued read/write access to the file system during the backup process. ([0127]).

Eshel does not teach or suggest “receiving from a host device, by the target storage device, a request specifying a data file, while the de-migration procedure is executing,” as required by amended claims 19 and 52. Eshel discloses allowing continued read/write access to

an (original, or “source”) file system while the (original/source) file system is being backed up to a mirror file system, as discussed above. Eshel does not, however, show receiving a request by the mirror file system during the de-migration procedure, as required by amended claims 19 and 52.

None of the other cited art teaches or suggests the combination of amended claims 19 and 52, either. Therefore, amended claims 19 and 52, and their respective dependent claims, are patentable over the cited art. The dependent claims also recite patentable subject matter.

Amended Claim 90

Claim 90 defines a method for de-migrating one or more data files stored on a source storage device storing a plurality of source data files, to a target storage device. Claim 90 requires “storing in a target storage device a plurality of target data files corresponding respectively to respective ones of a plurality of source data files stored in a source storage device” and “storing in each respective target data file information identifying the corresponding source data file” and has been amended to require “activating a de-migration procedure to copy source data files from the source storage device to locations of the corresponding target data files in the target storage device.” Claim 90 has also been amended to require “receiving, by the target storage device, a data processing request specifying a target data file while the de-migration procedure is executing” and “copying selected data from a source data file identified within the specified target data file to the specified target storage device, in response to the data processing request.” Support for the amendments to claim 90 is found at page 12, lines 1 to page 13, line 12, for example.

For the reasons set forth above, neither Eshel nor any of the other cited art teaches or suggests “receiving, by the target storage device, a data processing request specifying a target data file while the de-migration procedure is executing,” as required by amended claim 90. Therefore, amended claim 90 is patentable over the cited art.

V. Claim Rejections - 35 USC § 103

Claims 22, 26, 55 and 59 have been rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Eshel in further view of U.S. Publication No. 2006/0010154 (“Prahlaad”). The rejection is respectfully traversed.

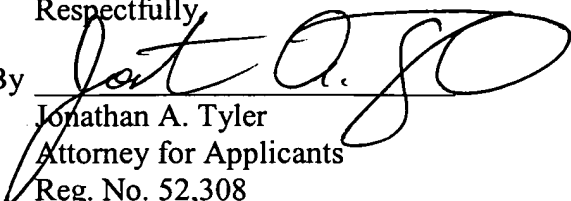
Claims 22 and 26 depend from amended claim 19. Claims 55 and 59 depend from amended claim 52. For the reasons set forth above, amended claims 19 and 52 are patentable over the cited art. Therefore, claims 22, 26, 55 and 59 are also patentable over the cited art. The dependent claims also recite patentable subject matter.

VI. New Claims 92-100

New dependent claims 92-100 recite various features described in the specification and in the withdrawn claims. No new matter is added.

VII. Conclusion

In view of the foregoing, each of claims 19-26, 52-59, 79, 88-90 and 92-100, as amended, is believed to be in condition for allowance. Accordingly, entry and reconsideration of these claims are respectfully requested.

Respectfully
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